FLASY 2025 - 11th Workshop on Flavour Symmetries and Consequences in Accelerators and Cosmology



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Inverse Seesaw with flavour and CP symmetries and its phenomenology

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We discuss Charged Lepton Flavour Violating (CLFV) signals in Inverse Seesaw (ISS) scenarios with 3+3 heavy sterile states and flavour and CP symmetries.

We distinguish between two options of these scenarios, each characterised by a different spectrum of the heavy sterile states and different forms of the couplings and mass matrices. For both options, different lepton mixing patterns are predicted depending on the choice of residual groups.

Compatibility of the scenario for both options with bounds on CLFV processes is studied, and bounds on the parameters are derived.

The possibility of distinguishing between the various choices of residual symmetries, as well as between the two different options, through such signals is also considered.

Author: DI MEGLIO, Francesco Paolo (IFIC Valencia)

Co-author: HAGEDORN, Claudia (IFIC - UV/CSIC)

Presenter: DI MEGLIO, Francesco Paolo (IFIC Valencia)

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